

area; approach provides equal protections to all new technology and incumbent microwave licensees, and ensures that incumbents have reasonable period of time to negotiate before being subjected to involuntary negotiation; if fixed transition is retained, supports minimum eight year period with minimum voluntary negotiation period of at least five years. (pp. 3-5).

Ameritech:

- Transition period should be three years to start on date of FCC Order channeling fixed microwave bands for relocation of incumbent 2 GHz fixed microwave licensees; the longer current licensees remain on designated 2 GHz frequencies, the longer it will take new providers to offer wide scale, interference-free PCS (p. 3). The FCC should implement a one year voluntary negotiating period before involuntary relocation may be instituted (p. 5). Relocated 2 GHz users should not be allowed to reclaim any prior spectrum. (p. 6).

Apple Computer, Inc.:

- No period specified; however, opposes lengthy transition periods generally, and any transition period for deployment of unlicensed PCS. (p. 8).

Associated PCN Company:

- Believes that a transition period of three years would be adequate. If spectrum sharing technologies are not introduced or do not work as efficiently as APCN envisions, rapid relocations will be necessary. (p. 6).

Association of American Railroads:

- At least ten years required to accommodate spectrum needs of the parties through voluntary negotiations; supports rolling transition period, commencing on the date in each market when a PCS license is granted. (pp. 14-17).

**Central and South West (public utility holding company)
(see American Petroleum Institute):**

- Supports a minimum five year voluntary negotiation period to be applied uniformly; commencement date should be deferred until Commission begins granting

authorizations to construct new technology systems.
(pp. 5-7).

Commonwealth Edison Company (see American Petroleum Institute):

- A five year transition period should be adopted for all geographic areas (pp. 3-6). The transition period for each affected frequency band should begin when the FCC authorizes the first actual full-term new technology in that band. (pp. 7-8).

Cox Enterprises, Inc.:

- No transition period is necessary since the FCC has opted for indefinite co-primary status for incumbent 2 GHz licensees and has guaranteed incumbents that they will not be adversely affected by implementation of new services. (pp. 4-7, Attachment 1, Comsearch Study).

Edison Electric Institute:

- Supports UTC proposal that FCC adopt "sliding period" of negotiations of at least five years, commencing with date each new service license is granted in any particular area. (pp. 3-4).

GE American Communications:

- Ten year transition period (or longer) needed because of uncertainty about ability of microwave users to effect seamless, disruption-free transition from 2 GHz band in any shorter period; irrespective of length of transition period, Commission could protect special needs of C-band satellite users by requiring additional period when proposed relocation involves 4 GHz frequencies. (pp. 4-5).

GTE Service Corporation:

- Urges indefinite or at least ten year period; given the unknown with respect to equipment availability for higher frequency use, and to ensure that current 2 GHz licensees get the full value of their licensee terms, this period of time is appropriate (pp. 5-6). The starting point for the transition period for a particular licensee's spectrum must be a bona fide

4). All current 2 GHz users are entitled to a fair transition period; different transition periods for certain areas are not appropriate. (p. 6).

Idaho Power Company:

- Argues for fifteen year transition period; microwave radio is being replaced on fifteen year cycle, and best time to move would be at time when equipment is being replaced due to age. (p. 1).

Lower Colorado River Authority (same as Association of American Railroads):

- At least ten years required to accommodate spectrum needs of the parties through voluntary negotiations; supports rolling transition period, commencing on the date in each market when a PCS license is granted. (pp. 14-18).

**Metropolitan Water District of Southern California
(see American Petroleum Institute):**

- Supports a minimum five year voluntary negotiation period to be applied uniformly; commencement date should be deferred until Commission begins granting authorizations to construct new technology systems. (pp. 6-7).

Montana Power Company (see American Petroleum Institute):

- Believes that a minimum five year transition period, during which only voluntary negotiations may occur, is necessary to ensure that long-range planning for migration from present assignments may be performed adequately. Moreover, the minimum five year transition period must be applied uniformly. Urges the FCC to begin the transition period for each affected frequency band upon actual issuance of licenses to new technology providers, since it is unlikely that significant deployment of new technologies will commence immediately. Rather, these providers will only enter into serious negotiations when grant of a license is certain. (pp. 4-9).

National Rural Electric Cooperative Association:

- Eight year negotiation period for rural areas with three year rolling period keyed to date new

technology license is granted in any particular area; cites UTC study in support of contention that a minimum transition period of eight years for each market is necessary so that all non-exempt incumbents have an opportunity to negotiate before being subjected to involuntary relocation. (pp. 8-9).

Niagara Mohawk Power Corporation:

- Supports a minimum seven year voluntary negotiation period to be applied uniformly; commencement date should be deferred until Commission begins granting authorizations to construct new technology systems. (p. 7).

North American Telecommunications Association:

- The FCC should not adopt a transition period for frequencies allocated to unlicensed PCS because unlicensed spectrum must be cleared before any unlicensed devices can be used. (pp. 6-8).

Northwest Iowa Power Cooperative:

- Supports a time span of eight years for voluntary relocation of incumbent microwave users as this time frame would allow the rechannalization of the 3 and 4 GHz bands to develop as well as provide equipment manufacturers with sufficient time to produce new equipment for the higher bands. (p. 2). Three years for voluntary relocation is too short to determine the stability of the new proposed frequencies. (p. 2). Suggests that the voluntary transition time for rural areas be extended beyond the recommended eight years or that an additional two years for voluntary negotiations be allowed any time beyond the established fixed voluntary negotiation period. (pp. 2-3).

NYNEX Corporation:

- Recommends a transition period of five years for both urban and rural areas to afford industry more time to realize technological developments that might allow more efficient spectrum utilization as well as time to encourage voluntary transitions. (pp. 4-6). The transition period should not commence until an emerging technology license actually is granted to provide a definite starting point for negotiation. (p. 7).

Pacific Telesis:

- Recommends that no transition period be adopted. Instead, existing users should be required to move as soon as the new technology licensee has contacted them and made appropriate arrangements for relocation. New licensees should cover all relocation expenses. (pp. 1-2). A transition period is also not necessary for the unlicensed band. (pp. 2-3).

Personal Communications Network Services of New York, Inc.:

- Supports maximum of three year transition period to commence immediately; no need to wait for adoption of report and order establishing channelization plan for higher frequency bands since commencement of voluntary negotiations will speed process of relocation if and when a PCS license is awarded to an ET service provider; states that efforts that promote liberation of spectrum for PCS by voluntary negotiations should be credited by Commission in licensing process for PCS. (p. 14, 14 n.14).

Plains Electric Generation and Transmission Cooperative:

- No existing microwave licensee should be required to relocate from the 2 GHz band for a fixed period of years during which the only method for relocation would be voluntary negotiations. Upon expiration of the voluntary negotiation period, incumbent 2 GHz licensees should retain co-primary status unless their frequencies are specifically requested. (p. 1).

Questar Service Corporation (see American Petroleum Institute):

- Believes that a minimum five year transition period, during which only voluntary negotiations may occur, is necessary to ensure that long-range planning for migration from present assignments may be performed adequately. Moreover, the minimum five year transition period must be applied uniformly. Urges the FCC to begin the transition period for each affected frequency band upon actual issuance of licenses to new technology providers since it is unlikely that significant deployment of new technologies will commence immediately. Rather, these providers will only enter into serious negotiations when grant of a license is certain. (pp. 4-9).

ROLM:

- A transition period of more than one year will be detrimental to the PCS industry -- if developers of unlicensed technologies are encumbered with unreasonable transition timeframes, they will reevaluate the economic viability of the market. (pp. 3-4).

Southern Natural Gas:

- Suggests a shorter transition period (3 years) for major metropolitan areas and a longer one (8 years) for rural areas. Also supports a one year minimum time period for voluntary negotiations after the transition period is over. (pp. 2-4).

Southwestern Bell Corporation:

- Ten year transition period should be established; this amount of time will give the FCC and the industry more time and better information before making unwise spectrum and facility relocation decisions. (pp. 5-6). The transition period should not commence prior to a bona fide request for relocation. (pp. 7-8). Alternatively, the FCC should adopt a minimum time period for voluntary negotiations of 18 months from the receipt of a bona fide request. (pp. 11-12). Opposes elimination of a transition period for unlicensed services. (pp. 8-10). Opposes a shorter transition period in cases where less spectrum is available and voluntary negotiations have not proven successful. (pp. 10-11).

Telephone and Data Systems, Inc.:

- The facilities of any incumbent microwave licensee should maintain primary status in the 2 GHz band for a minimum of ten years from the effective date of the Commission's Second Report and Order in this docket or a minimum two year period from grant of a license for an emerging technology service in the operating area of incumbent microwave licensee, whichever period expires last. (p. 2).

Telocator:

- Relocation of 2 GHz microwave licensees should occur as promptly as possible under prescribed Commission procedures. The Commission's rules already require that 2 GHz licensees be fully compensated and be provided

with comparable alternative facilities; therefore, "where an Emerging Technologies licensee satisfies those conditions, there can be no justification for unnecessary delays in completing the relocations." (p. 7).

Time Warner Telecommunications:

- Limit transition period to three years to commence the earlier of (1) adoption of rechannelization plans or (2) decision on licensing PCS in the PCS NPRM in Docket 90-314. Longer transition period will reduce incumbents' incentives to negotiate with ET providers, frustrating demand for new services, jeopardizing U.S. global leadership position, and injuring U.S. economy. (pp. 5-10, 17). Protections afforded incumbents ensure that shorter transition period will not harm their operations. (pp. 10-12).

United States Telephone Association:

- States that transition period should commence as soon as a channelization plan that allows for relocation is adopted or as soon as it can be shown that comparable alternative media is available. (p. 3).

Utilities Telecommunications Council:

- Should provide for "sliding period" of negotiations of at least five years commencing with the date each new service license is granted in any particular area; five years after grant, new licensee could enter voluntary agreement with incumbent or invoke mandatory relocation procedures. (pp. 17-19). If fixed transition period is adopted, a new service licensee should be prohibited from invoking mandatory relocation procedures unless it is able demonstrate bona fide efforts at negotiation continuing over at least a one year period. (pp. 25-26).

SPECTRUM SHARING**American Petroleum Institute:**

- Asserts that Commission's decision to permit co-equal sharing of 2 GHz band with PCS operations holds potential to create significant harmful interference to existing POFS operations; therefore, emphasizes need for transition plan that minimizes harmful impact on incumbent licensees and public safety. (p. 4). Urges early notice policy to fully apprise existing licensees as far in advance as possible of any plan to locate a particular new technology or service in a specific spectrum location; furthermore, Commission should use TIA Bulletin 10-E standard as minimum interference threshold for shared POFs/new technology use of 2 GHz spectrum. (pp. 26-28).

Ameritech:

- Ameritech's PCS trial indicates that frequency sharing is impractical for fixed users in spectrum subject to higher power PCS licenses. (p. 3, attachment 1).

Association of American Railroads:

- States that fixed microwave licensees must maintain primary status; FCC should not authorize spectrum sharing of 2 GHz frequencies by fixed microwave users and emerging technologies until it issues final PCS technical standards in GEN Docket 90-314; PCS-to-microwave interference standards adopted in that proceeding must provide microwave licensees same level of protection provided by current standard 10-E. (pp. 10-12).

Central and South West (see American Petroleum Institute):

- Asserts that Commission's decision to permit co-equal sharing of 2 GHz band with PCS operations holds potential to create significant harmful interference to existing POFS operations; therefore, emphasizes need for transition plan that minimizes harmful impact on incumbent licensees and public safety. (p. 3). Urges early notice policy to fully apprise existing licensees as far in advance as possible of any plan to locate a particular new technology or service in a specific spectrum location; furthermore, Commission should use TIA Bulletin 10-E standard as minimum interference threshold for shared POFs/new technology use of 2 GHz spectrum. (pp. 23-25).

Commonwealth Edison Company (see American Petroleum Institute):

- To ensure that new 2 GHz services do not interfere with existing licensees, the FCC should notify incumbents in advance of the spectrum location for new services. Bulletin 10-E must become the minimum acceptable interference threshold. (pp. 21-22).

GE American Communications:

- States that ten year transition period (thirteen years for relocation of a microwave user into 4 GHz band) might allow development of technology that might permit more effective spectrum sharing. (pp. 4, 8).

Idaho Power Company:

- Urges adoption of policy to alert incumbent licensees as early as possible concerning configuration of any new service proposed for sharing of fixed spectrum bands. (p. 1).

Lower Colorado River Authority (same as Association of American Railroads):

- States that fixed microwave licensees must maintain primary status; FCC should not authorize spectrum sharing of 2 GHz frequencies by fixed microwave users and emerging technologies until it issues final PCS technical standards in GEN Docket 90-314; PCS-to-microwave interference standards adopted in that proceeding must provide microwave licensees same level of protection provided by current standard 10-E. (pp. 11-13).

Metropolitan Water District of Southern California (see American Petroleum Institute):

- Asserts that Commission's decision to permit co-equal sharing of 2 GHz band with PCS operations holds potential to create significant harmful interference to existing POFS operations; therefore, emphasizes need for transition plan that minimizes harmful impact on incumbent licensees and public safety. (p. 4). Urges early notice policy to fully apprise existing licensees as far in advance as possible of any plan to locate a particular new technology or service in a specific

spectrum location; furthermore, Commission should use TIA Bulletin 10-E standard as minimum interference threshold for shared POFs/new technology use of 2 GHz spectrum. (pp. 23-25).

Montana Power Company (see American Petroleum Institute):

- Urges the FCC to apprise existing licensees as soon as possible of any plan to allocate specific spectrum to a new technology or service. In this manner, incumbent licensees will be able to work with emerging technology proponents to forestall interference problems. Also supports FCC establishment of a minimum interference threshold criteria for all new services regardless of technical configuration. Suggests that the TIA Bulletin 10-E standard be used as such a threshold for shared POFs/new technology use of 2 GHz spectrum. (pp. 23-25).

Niagara Mohawk Power Corporation (see American Petroleum Institute):

- Asserts that Commission's decision to permit co-equal sharing of 2 GHz band with PCS operations holds potential to create significant harmful interference to existing POFs operations; therefore, emphasizes need for transition plan that minimizes harmful impact on incumbent licensees and public safety. (pp. 3-4). Urges early notice policy to fully apprise existing licensees as far in advance as possible of any plan to locate a particular new technology or service in a specific spectrum location; furthermore, Commission should use TIA Bulletin 10-E standard as minimum interference threshold for shared POFs/new technology use of 2 GHz spectrum. (pp. 23-25).

Northwest Iowa Power Cooperative:

- The sharing of the 2 GHz band between microwave users and developing technologies would be an acceptable alternative to moving existing users as many PCN proponents acknowledge sharing is possible. Supports strict co-channel and adjacent channel guidelines, based on findings from test data and recommends continued field testing to determine consequences of shared spectrum use. (p. 4).

Personal Communications Network of New York, Inc.:

- States that Commission's proposal to allow primary occupancy of band by microwave facilities licensed

before January 16, 1992 does not involve true sharing arrangement and will impede availability of adequate spectrum for PCS; moreover, to extent that joint use is contemplated, it is dependent on success of sharing techniques and such technologies have not been found acceptable by existing users of the 2 GHz band. (pp. 4-6).

Questar Service Corporation (see American Petroleum Institute):

- An early notice period, apprising existing licensees of spectrum allocations to new technologies or services, will allow incumbent licensees to work with emerging technology proponents to forestall interference problems. Also urges FCC to establish a minimum threshold criteria for all new services regardless of technical configuration, based on the TIA Bulletin 10-E standard. (pp 24-26).

Southwestern Bell Corporation:

- The FCC should allow more time for spectrum sharing techniques to be tested in order to avoid displacing a large number of existing 2 GHz users unnecessarily (p. 5). Southwestern Bell has developed a spectrum sharing technique that, unlike other techniques, works in areas with a high density of microwave links. (pp. 13-14).

Telocator:

- States that spectrum sharing should be used "initially and whenever feasible;" further asserts that relocation should only be sought where co-existence is not a viable option. (p. 4).

Utilities Telecommunications Council:

- States that one of the positive results of delaying availability of mandatory relocation procedures would be to stimulate development of spectrum-sharing techniques. (p. 16).

DEFINITION OF COST COMPENSATION**American Petroleum Institute:**

- ET service provider must guarantee payment of all relocation costs including engineering, equipment, site acquisition and preparation costs, construction and equipment testing, and application preparation and FCC filing fees, as well as any additional costs that relocated licensee may incur as a result of operation in a different fixed microwave band or migration to other media; in addition, ET provider must pay for all activities necessary for implementing new facilities. Emphasizes that incumbent must be able to maintain control over implementation of replacement facilities. (pp. 14-18).

Ameritech:

- The FCC should clarify that emerging technology service providers can supply the items essential for relocation (e.g., legal and engineering services) in lieu of compensating third parties. (p. 4).

Association of American Railroads:

- Supports requirement that ET provider guarantee payment of all relocation expenses; would expand definition to include authorizing displaced licensee to design and build new system (paid for by new technology provider); would clarify to specify that new facilities will be owned by displaced microwave licensee. (pp. 20-21).

Central and South West (see American Petroleum Institute):

- ET service provider must guarantee payment of all relocation costs including engineering, equipment, site acquisition and preparation costs, construction and equipment testing, and application preparation and FCC filing fees, as well as any additional costs that relocated licensee may incur as a result of operation in a different fixed microwave band or migration to other media; in addition, ET provider must pay for all activities necessary for implementing new facilities. (pp. 11-12). Emphasizes that incumbent must be able to maintain control over implementation of replacement facilities. (pp. 12-14).

Commonwealth Edison Company (see American Petroleum Institute):

- Compensated costs must include all activities necessary for implementing new facilities, such as frequency coordination, cost analysis of the entire procedure and the expenditure of time by personnel of the displaced licensee. (pp. 11-12).

Idaho Power Company:

- Supports proposal to require payment of all costs associated with an involuntary move, including internal engineering time. (p. 1).

Lower Colorado River Authority (same as Association of American Railroads):

- Supports requirement that ET provider guarantee payment of all relocation expenses; would expand definition to include authorizing displaced licensee to design and build new system (paid for by new technology provider); would clarify to specify that new facilities will be owned by displaced microwave licensee. (pp. 21-22).

Metropolitan Water District of Southern California (see American Petroleum Institute):

- ET service provider must guarantee payment of all relocation costs including engineering, equipment, site acquisition and preparation costs, construction and equipment testing, and application preparation and FCC filing fees, as well as any additional costs that relocated licensee may incur as a result of operation in a different fixed microwave band or migration to other media; in addition, ET provider must pay for all activities necessary for implementing new facilities. (p. 12). Emphasizes that incumbent must be able to maintain control over implementation of replacement facilities. (pp. 12-14).

Montana Power Company (see American Petroleum Institute):

- Agrees that the emerging technology service provider must guarantee the payment of all relocation costs including engineering, equipment site acquisition and preparation costs, construction and equipment testing, and application preparation and FCC filing fees, as well as any additional costs that relocated microwave

licensees may incur as a result of operation in a different fixed microwave band or migration to other media. In addition, the FCC must ensure that the costs of activities necessary for implementing the new facilities, such as frequency coordination and cost analysis, are assumed by the new licensee. This should include identifying and obtaining new microwave frequency assignments or other facilities and expenditure of time by personnel of the displaced licensees. Does not believe that the FCC should dictate how the parties accomplish the task. MPC prefers that its own personnel or selected contractors be used to meet internal quality assurance requirements. Also seeks assurance that "partial system buyouts" will be adequately compensated by new technology licensees and that replacement frequencies or technologies will offer adequate interoperability and provide full interface capability. (pp. 12-15).

Niagara Mohawk Power Corporation (see American Petroleum Institute):

- ET service provider must guarantee payment of all relocation costs including engineering, equipment, site acquisition and preparation costs, construction and equipment testing, and application preparation and FCC filing fees, as well as any additional costs that relocated licensee may incur as a result of operation in a different fixed microwave band or migration to other media; in addition, ET provider must pay for all activities necessary for implementing new facilities. (pp. 11-12). Emphasizes that incumbent must be able to maintain control over implementation of replacement facilities. (pp. 12-14).

Personal Communications Network Services of New York, Inc.:

- If adopted, Commission's proposed elements for involuntary relocation should be modified to prevent process from becoming a revenue raising vehicle for incumbent 2 GHz users; FCC proposal should be modified to require ET service providers to guarantee payment only of all "reasonable" relocation costs to avoid exposing ET service providers to unlimited liability. (pp. 8-11). Requirement that ET provider guarantee payment of additional costs incurred as a result of operation in a different band or migration to other media should also be modified to include a finite time frame for payment of such costs. (pp. 11-12).

Questar Service Corporation (see American Petroleum Institute):

- Agrees that the emerging technology service provider must guarantee the payment of all relocation costs including engineering, equipment site acquisition and preparation costs, construction and equipment testing, and application preparation and FCC filing fees, as well as any additional costs that relocated microwave licensees may incur as a result of operation in a different fixed microwave band or migration to other media. In addition, the FCC must ensure that the costs of activities necessary for implementing the new facilities, such as frequency coordination and cost analysis, are assumed by the new licensee. This should include identifying and obtaining new microwave frequency assignments or other facilities and expenditure of time by personnel of the displaced licensees. Does not believe that the FCC should dictate how the parties accomplish the task. MPC prefers that its own personnel or selected contractors be used to meet internal quality assurance requirements. Also seeks assurance that "partial system buyouts" will be adequately compensated by new technology licensees and that replacement frequencies or technologies will offer adequate interoperability and provide full interface capability. (pp. 12-15).

ROLM:

- PCS beneficiaries should be responsible for reimbursing incumbents for incurred relocation costs, limited to direct expenses, such as frequency dependent equipment, site engineering and application fees or the cost of interface equipment to alternative media. (p. 5).

Telocator:

- States that ET providers and 2 GHz licensees should have choice of three alternatives: (1) construction of "turn key" facilities; (2) reimbursement of reasonable expenses incurred; or (3) up front cost cash compensation. (pp. 8-9). FCC should clarify that cost compensation includes replacement cost of existing facilities, including all expenses necessary to bring new system into operation, where the new facilities are deemed to be comparable alternatives. (p. 11).

U.S. Small Business Administration:

- Requests the FCC to examine alternatives to the current proposal to require emerging technology licensees to pay

for relocation. Believes that the public should pay for relocation if utilization of the 2 GHz band is in the public interest. For example, current licensees could pay for relocation and recoup those costs through the rate regulation process, allowing small businesses to focus scarce capital on construction of new systems. (pp. 6-7).

DEFINITION OF COMPARABLE ALTERNATIVE FACILITIES**American Gas Association:**

- The displaced user should be the one to define "comparable" system and should be empowered to reject a system as inappropriate, if the long term costs of operating such a system unreasonably exceed the cost of the user's former system. (p. 4).

American Petroleum Institute:

- Incumbent licensees must have control over the implementation of replacement facilities (p. 17). FCC should clarify that displaced incumbents can choose spectrum-based facilities as a replacement (p. 18). "Comparability" must include comparable bandwidth, availability, reliability and performance (pp. 20-21). New 2 GHz licensees should be required to file a statement from the displaced licensee, with licensee, with license applications confirming that a "seamless handoff" has taken place and that all reimbursement costs have been made. (p. 20).

American Public Power Association:

- If FCC creates process that permits and encourages parties to privately negotiate relocation agreements, there is no need to define term; however, agrees with comments of UTC in its Petition for Clarification and/or Reconsideration that (1) incumbent 2 GHz microwave licensee should not be moved to non-microwave replacement facilities unless incumbent specifically agrees to the use of such facilities; (2) incumbent private 2 GHz microwave licensee should be moved only to private replacement facilities, unless it specifically agrees otherwise; and (3) incumbent 2 GHz microwave licensee should have right to oversee engineering, construction, and testing of its microwave replacement facilities, including right of incumbent to engineer, build, and test replacement facilities itself or to select contractors (while ET licensee bears the costs). (pp. 5-6).

Ameritech:

- The FCC should define comparable alternative facilities in terms of capacity, useful life, and reliability. (pp. 4-5, Attachment 1, Table 1).

Associated PCN Company:

- Any replacement system for current 2 GHz facilities must be implemented seamlessly going beyond the technical specifications identified by the FCC. Training to use the new facilities and frequencies, ensuring the availability of spare parts, institution of proper operating procedures, and other intangibles must be funded. (pp. 4-5).

Association of American Railroads:

- Defines term to mean that new facilities provided to displaced 2 GHz licensees are equal to or superior than existing facilities in all aspects of system performance (including, e.g., reliability, capacity, speed, bandwidth, throughput, and overall efficiency); performance features must be equivalent regardless of alternative medium or technology selected. Must guarantee displaced microwave licensees interference protection equivalent to Standard 10-E. (p. 20).

Central and South West (see American Petroleum Institute):

- Comparability must, at a minimum, include comparable bandwidth, availability, reliability and performance and incumbent licensees must never be required to use common carrier facilities as a replacement for 2 GHz microwave links unless such a replacement is specifically chosen by the given displaced incumbent. States that disputes will be minimized when incumbent chooses alternate facilities and directs the process; however, mediation should be available to help parties resolve any disagreements. (pp. 15-17).

Commonwealth Edison Company (see American Petroleum Institute):

- Replacement facilities for incumbent 2 GHz users must offer adequate interoperability and provide full interface capability with a multi-link system (pp. 13-14). The displaced incumbent must be able to choose whether a new frequency or alternative media technology will be used to replace existing links. (p. 14).

"Comparable facilities" must provide at a minimum comparable bandwidth, availability, reliability and performance. New technology providers should be required to file as a part of their applications for use of 2 GHz spectrum, statement from the affected incumbents confirming that a "seamless handoff" has taken place. (pp. 16-17).

Edison Electric Institute:

- Comparability should not be defined by reference to any single, inflexible standard; rather, Commission should create a process that permits and encourages parties to negotiate privately and to identify the factors that each microwave licensee considers important to such an assessment. (pp. 4-5).

GTE Service Corporation:

- To avoid the need for dispute resolution, the FCC should expand the list of items considered for facilities to be deemed "comparable." Disposal of old equipment, training, spares and test equipment should all be included. (p. 7). The Commission should request technical standards fora and other industry groups to establish acceptance criteria required to demonstrate comparability of facilities. (p. 7).

Idaho Power Company:

- States that ET licensee must build a satisfactory replacement link before an involuntary relocation may take place and that all such arrangements must be made to displaced licensee's satisfaction. Urges adoption of standard of equal quality and reliability. (p. 1).

Lower Colorado River Authority (same as Association of American Railroads):

- Defines term to mean that new facilities provided to displaced 2 GHz licensees are equal to or superior than existing facilities in all aspects of system performance (including, e.g., reliability, capacity, speed, bandwidth, throughput, and overall efficiency); performance features must be equivalent regardless of alternative medium or technology selected. Must guarantee displaced microwave licensee's interference protection equivalent to Standard 10-E. (pp. 19-20).

Metropolitan Water District of Southern California (see American Petroleum Institute):

- Comparability must, at a minimum, include comparable bandwidth, availability, reliability and performance and incumbent licensees must never be required to use common carrier facilities as a replacement for 2 GHz microwave links unless such a replacement is specifically chosen by the given displaced incumbent. States that disputes will be minimized when incumbent chooses alternate facilities and directs the process; however, mediation should be available to help parties resolve any disagreements. (pp. 15-16).

Montana Power Company (see American Petroleum Institute):

- Suggests that the incumbent licensee have the option of deciding on the equipment vendor and employment of engineering and/or construction services. Also believes that the concept of comparability must, at a minimum, include comparable bandwidth, availability, reliability and performance. A new technology provider should be required to file as part of its FCC application, a statement from any affected incumbent licensee confirming that seamless handoff has taken place (pp. 15-17). Believes that use of an actual "negotiated rulemaking" for determining definitions of comparability will be of limited value -- the factors most important in each licensee's system will vary widely. (pp. 18-19).

National Rural Electric Cooperative Association:

- No need to define term if a process exists that allows and encourages voluntary good-faith negotiations; comparability in electric power system reliability is an assessment to be made by electric utility; moreover, since comparability will vary geographically on case-by-case basis, generic model is of little value. (p. 7).

Niagara Mohawk Power Corporation (see American Petroleum Institute):

- Comparability must, at a minimum, include comparable bandwidth, availability, reliability and performance and incumbent licensees must never be required to use common carrier facilities as a replacement for 2 GHz microwave links unless such a replacement is specifically chosen by the given displaced incumbent. States that disputes will be minimized when incumbent chooses alternate

facilities and directs the process; however, mediation should be available to help parties resolve any disagreements. (pp. 15-16).

NYNEX Corporation:

- Alternative facilities must be comparable to the current 2 GHz point-to-point facility based on calculated path reliability, measured in minutes of outage per year; capacity afforded by the alternative facility; and quality, i.e., signal/noise ratio for analog systems and bit error rate for digital systems. The alternative facilities must have at least the same number of dedicated radios and paths as well as a comparable depth of spares and the incumbent must be able to choose the vendor. (pp. 7-8).

Personal Communications Network Services of New York, Inc.:

- Methods of evaluating comparability cannot be prescribed generically, but must be decided on a case-by-case basis; mediation should be used to resolve disputes over comparability. Also states that one year time period to test new system is not necessary because it is common industry practice to "prove in" a new system before the old system is taken out of service. (pp. 12-13).

Questar Service Corporation (see American Petroleum Institute):

- Agrees that comparable alternate facilities must be provided for purposes of establishing whether the requirement of providing adequate replacement facilities has been met but suggests that the incumbent licensee have the option of deciding on the equipment vendor and employment of engineering and/or construction services. Also believes that the concept of comparability must, at a minimum, include comparable bandwidth, availability, reliability and performance. A new technology provider should be required to file as part of its FCC application, a statement from any affected incumbent licensee confirming that seamless handoff has taken place (pp. 15-17). Believes that use of an actual "negotiated rulemaking" for determining definitions of comparability will be of limited value -- the factors most important in each licensee's system will vary widely. (pp. 18-19).

Southern Natural Gas:

- Believes the idea of comparable facilities will have to be defined on a case-by-case basis -- parties will be able to negotiate better if given the opportunity to work out innovative designs without the restrictions of a generic rule. (p. 4). Also believes that a negotiated rulemaking would not be beneficial in this context. (pp. 4-5).

Southwestern Bell Corporation:

- The FCC should rely on a standards body -- such as TIA -- to develop a set of parameters for the definition of comparable alternative facilities (pp. 2-3). The Commission should not require absolute comparability in all instances; in some cases, the incumbent may have "over-engineered" its microwave facilities. (pp. 3-4).

Telocator:

- Suggests that FCC declare that rebuttable presumption of comparability is established where ET provider shows that its proposed facility's specifications "meet or exceed" those of the incumbent's existing facilities, and demonstrates through reliable engineering documentation that comparable performance can be expected under anticipated field conditions. (pp. 11-12).

Time Warner Telecommunications:

- States that appropriate definition of comparable alternative facilities should be resolved by negotiated rulemaking; detailed technical questions, together with ability of relatively small number of participants to represent the positions of the parties involved and the fact that implementation of Commission policies depends heavily on definition of comparability, militate in favor of this mechanism. (pp. 18-20).

United States Telephone Association:

- Agrees with Commission's plan as detailed in the First Report and Order and Third NPRM as to ways in which ET service provider must demonstrate comparability; because issues involved in determining comparable facilities will be fact-

based, alternative dispute resolution techniques could be employed should a dispute arise. (pp. 2-3).

Utilities Telecommunications Council:

- Commission should not attempt to specifically define term but instead should allow parties to individually identify and negotiate factors that each microwave licensee considers important to an assessment of "comparability;" inflexible standard is unwise where so many variables are involved in design and operation of 2 GHz microwave systems or could arise as a result of actions in other allocation proceedings or as a result of marketplace developments. (pp. 3-7).

MECHANISMS FOR DISPUTE RESOLUTION**American Gas Association:**

- Urges the FCC to give the displaced user the option of choosing the appropriate alternative dispute resolution forum and to require the emerging technology provider to bear the costs, unless the existing user acted in bad faith regarding voluntary negotiations. (p. 4).

American Petroleum Institute:

- Mediation should be used to resolve disputes, so long as the burden of demonstrating comparability falls on the new service provider. (pp. 21-22).

American Public Power Association:

- Believes that mediation is best approach; rules adopted should allow any party to submit any issue(s) to mediation with a fixed period for completion of a binding agreement; if no agreement is reached, any party should be allowed to submit the matter to the Commission for a final decision. (pp. 6-7).

Associated PCN Company:

- While APCN believes that current rules provide adequate avenues for resolution of interference disputes, there are two situations where dispute resolution mechanisms would be profitable -- when the new provider and incumbent cannot agree at the design/engineering stage on the acceptability and comparability of the replacement system and when there is a dispute over proof of performance. Urges the FCC to promulgate a rule requiring a binding arbitration process. (p. 5).

Association of American Railroads:

- Supports use of arbitration with independent arbitrator and other alternative procedures to resolve disputes on involuntary relocation and comparability as fair and cost efficient; cautions that, regardless of mechanism, FCC must explicitly define criteria upon which to base decisions, particularly a definition of comparable alternative facilities which guarantees Standard 10-E or equivalent interference protection. (p. 21).

Central and South West (see American Petroleum Institute):

- Supports mediation, followed by arbitration for solving disputes over involuntary relocation and/or comparability of service. (pp. 18-19).

Commonwealth Edison Company (see American Petroleum Institute):

- Allowing displaced incumbents to choose the appropriate alternative facility and direct the relocation work will minimize disputes (pp. 15-16). Mediation should be available to resolve disagreements; third-party arbitration should be used if mediation fails. (p. 16-19).

Edison Electric Institute:

- Supports mediation, with its emphasis on settlement rather than litigation, to resolve disputes over mandatory relocation. (pp. 5-6).

Idaho Power Company:

- Supports establishment of procedure by which disinterested third party arbitrators would handle migration disputes. (p. 1).

Lower Colorado River Authority (same as Association of American Railroads):

- Supports use of arbitration with independent arbitrator and other alternative procedures to resolve disputes on involuntary relocation and comparability as fair and cost efficient; cautions that, regardless of mechanism, FCC must explicitly define criteria upon which to base decisions, particularly a definition of comparable alternative facilities which guarantees Standard 10-E or equivalent interference protection. (p. 21).

Metropolitan Water District of Southern California (see American Petroleum Institute):

- Supports mediation, followed by arbitration for solving disputes over involuntary relocation and/or comparability of service. (pp. 18-19).